IPC
Data Equipment
& Supply

8 MAY 1970

MEMORANDUM FOR: Mr. Coffey

STATINTL

1. [redacted] statement that "all information which is being put into the computer must first be put on cards or paper tape and subsequently converted from either of these to magnetic tape" is not quite accurate. Punched cards and paper tape can be read directly from a card or tape reader into core, the computer memory. With third generation computers the cards or tapes quite often are converted to magnetic tape or disc on an off-line processor before beginning the computer process. Some editing and data validation is done during the conversion process. The primary purpose for this conversion step, however, is to get a better speed ratio between the central processor and the input device. A card reader can send a maximum of 80,000 characters per minute to the central processor while magnetic tapes routinely send about 90,000 characters per second to the processor. Magnetic disks are somewhat slower than magnetic tapes for input although they function more effectively as storage devices because they can be accessed randomly.

2. The magnetic tape selectric typewriter (MTST) creates a magnetic tape record with a different code structure than that used by computer systems. Rather than bypassing conversion, they create a somewhat more complicated problem of code and format conversion. The MTST was not manufactured primarily to serve as an input device. It is intended to be a self-contained unit, competitive with the flexowriter, which permits the text of a document to be edited without having to manually retype the whole text.

3. Punched cards will probably continue to be the main input medium for the indefinite future. They are cheap, easy to correct and easy to handle. Optical character readers hold promise for reducing the amount of data handling in the future but they will be confined to a limited number of type fonts. Until handwritten material can be read, the optical reader will also require a keyboard operation not significantly different from key punching.

STATINTL

/s/ [redacted]

RHW

DDS/SSS/RHW:skd (7 May 1970)
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